## Red-rumped Swallow Cecropis daurica in the Northern Territory

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## Abstract

The Red-rumped Swallow Cecropis daurica is an irregular visitor to Australia during its non-breeding season. We present an account of records of this species in the Northern Territory (NT), Australia. Photographs are provided for two previously undocumented records, resulting in a total of seven reported occurrences in the NT. Red-rumped Swallow has been recorded between October and April, often in association with other hirundinid species. Subspecific identification of NT records is not definitive and observers are encouraged to carefully document additional occurrences.

The Red-rumped Swallow *Cecropis daurica* is a widespread Eurasian migratory swallow, with irregular occurrences in northern Australia, where the species was first recorded in 1983 (Higgins *et al.* 2006). Turner (2004) recognised ten subspecies while the current IOC Checklist, Version 3.1 (Gill & Donsker 2012), recognises eight (others having been elevated to full species). BirdLife International (2012) has lumped the species with Striated Swallow *Cecropis striolata*, and retains the generic placement in *Hirundo*. Turner (2004) suggests that DNA studies support separate genera rather than *Hirundo sensu lato*. Here we follow the IOC (Gill & Donsker 2012) for clarity, however, we note that taxonomic resolution may show Red-rumped Swallow and Striated Swallow to be the same species.

Three Red-rumped Swallow subspecies have wintering ranges that include South-East Asia, and are those most likely to occur in Australia. *Cecropis daurica japonica* is said to winter in South-East Asia (Turner & Rose 1989; Robson 2008), and northern Australia (Turner 2004; Gill & Donsker 2012). The ranges of the nominate *C. d. daurica* and *C. d. nipalensis* remain unclear. Most authors state that the winter range of *C. d. daurica* includes parts of South-East Asia, while *C. d. nipalensis* winters in India and possibly Myanmar (Turner & Rose 1989; Turner 2004; Gill & Donsker 2012); however Robson (2008) lists *C. d. nipalensis* as occurring in South-East Asia,

but indicates uncertainty as to whether it is widespread in the region or restricted to Myanmar, and does not list *C. d. daurica* for South-East Asia.

The majority of Australian records and reports of Red-rumped Swallow are from north-eastern Queensland (particularly the Mossman-Daintree River area) and around Broome and Kununurra in north-western Western Australia (Higgins *et al.* 2006). Here, we present an account of the species in the Northern Territory (NT).

The earliest report that appears in the literature of the species in the NT is from East Point, Darwin in October 1999 (Higgins et al. 2006). From December 1999 to January 2000 up to 18 birds were reported on Groote Eylandt (Noske & Brennan 2002; Higgins et al. 2006) (Table 1). This is the only known occurrence of a group of Red-rumped Swallows reported in the NT. No photographs or specimens are currently available from either of these reports.

All subsequent reports of the species occurred at the Leanyer Sewage Ponds in Darwin (12°21'39"S, 130°54'39"E): a 2003 record is described in BARC Submission No. 390; a 2005 report is listed as an unconfirmed report in Higgins *et al.* (2006); and a 2006 record is described in BARC Submission No. 483 (Table 1). Two additional, previously undocumented records are reported here.

Table 1. Summary of all reported occurrences of Rcd-rumped Swallow Cecropis daurica in the Northern Territory, Australia.

Date	Location	Reference
October 1999	East Point, Darwin	Higgins et al. (2006)
05 December 1999 – 29 January 2000	Various sites, Groote Eylandt	Noske & Brennan (2002)
20 February 2003	Leanyer Sewage Ponds, Darwin	BARC Submission No. 390
11 March 2005	Leanyer Sewage Ponds, Darwin	Higgins et al. (2006)
16–17 March 2006	Leanyer Sewage Ponds, Darwin	BARC Submission No. 483
23 February – 01 March 2008	Leanyer Sewage Ponds, Darwin	A. Carlson, pcrs. comm. (including photos); S. Kcatcs, pers. comm.; current report
18 April 2010	Leanyer Sewage Ponds, Darwin	Current report

The first previously undocumented record is of two separate sightings from 23 February and 1 March 2008 from the Leanyer Sewage Ponds (A. Carlson, pers. comm.). Figure 1 shows an individual photographed on 23 February 2008 and Figure 2 shows an individual photographed on 1 March 2008. Given the timing of these two sightings, it is probable that these records represent the same individual. A Red-rumped Swallow was also reported from Leanyer Sewage Ponds on 24 February 2008 (S. Keates, pers. comm.) and this was presumably the same individual, although no photographs are available.

The second previously undocumented record, and the most recently reported NT sighting, was of one individual observed and photographed by the authors in 2010. During the late afternoon of 18 April 2010, the individual (Figures 3–5) was observed and photographed flying over the north-east portion of the Leanyer Sewage Ponds. It was observed for about 30 minutes hawking insects above the ponds in the company of a large number of Tree Martins *Petrochelidon nigricans*. At the end of the observation period the bird gained altitude and flew in a westerly direction.

Several features easily separate the 2008 and 2010 individuals from Barn Swallow *Hirundo rustica* and Welcome Swallow *H. neonena*, which can occur seasonally in the Top End of the NT. The individual in Figure 1 shows prominent orange-rufous on the side of the head, which extends towards the back of the neck; in Figure 2 the individual shows extensive orange-rufous on the side of the head. The individual



Figures 1–2. Red-rumped Swallow *Cecropis daurica*, Leanyer Sewage Ponds, Darwin, Northern Territory: 1. 23 February 2008; 2. 1 March 2008. (Ashley Carlson)

in Figures 3–5 similarly displays prominent orange-rufous on the side of the head, which appears in Figure 3 to extend towards the back of the head, although it is unclear whether the collar is complete. The birds shown in Figures 1–5 are extensively streaked and display a prominent orange-rufous rump (Figures 1; 3). The individual in Figures 1–2 shows rufous tones to the underparts. The individual in Figures 3–5 displays buffy-rufous underwing-coverts and black undertail coverts (also seen in the individual in Figure 2). Both Barn Swallow and Welcome Swallow lack the orange-rufous rump and nuchal collar, and streaking (Higgins *et al.* 2006).

More difficult is differentiating Red-rumped Swallow from Striated Swallow, which, as noted above, is considered a subspecies by BirdLife International (2012) and also occurs in South-East Asia (Higgins *et al.* 2006). The streaking on the individuals in Figures 1–5 seems consistent with Red-rumped Swallow; this streaking is not as dark or bold as in Striated Swallow (see photographs of Striated Swallow in Carter 2000). The rufous tones of the underparts are also consistent with Red-rumped Swallow



Figures 3–5. Red-rumped Swallow *Cecropis daurica*, Leanyer Sewage Ponds, Darwin, Northern Territory, 18 April 2010: 3. Upperwing view; 4. Underpart view; 5. underwing view. (Micha V. Jackson)

(Carter 2000; Turner 2004). Both Carter (2000) and Turner (2004) note that Red-rumped Swallow can have an incomplete rufous collar, while the collar is indistinct or absent in Striated Swallow. It is unclear from Figures 1–5 how much of a nuchal collar exists on the photographed individuals. The extensive orange-rufous colour on the side of the head, which is clearly visible on the individuals in Figures 1–5, is vestigial in Striated Swallow according to Carter (2000). The strong buffy-rufous wash on the underwing-coverts and underparts of the individual in Figures 3–5 also suggest Red-rumped Swallow (Turner & Rose 1989; Carter 2000; Turner 2004), though Turner (2004) states that the underwing-coverts of Striated Swallow also have a buffy wash. The streaking on the underparts of Striated Swallow is broader and darker than on Red-rumped Swallow, though the difference between the Red-rumped Swallow subspecies *C. d. japonica* and all races of Striated Swallow (particularly *C. s. striolata*) can be marginal and should not be used as the only separating feature according to Carter (2000). This applies particularly in the case of the individual in Figure 2, which is heavily streaked.

Most documented occurrences from the Leanyer Sewage Ponds were in association with other hirundinid species; the 2003 (BARC Submission No. 390), 2008, and 2010 records were in association with Tree Martins, and the 2006 record (BARC Submission No. 483) with Barn Swallows. Tree Martins migrate from more southerly areas of Australia, generally visiting the area from late March – April to September – November (Higgins et al. 2006) while Barn Swallows visit the region from Eurasia generally between September and April (Higgins et al. 2006). All reported occurrences from Leanyer have been in the months of February, March and April. The Groote Eylandt birds reported by Noske and Brennan (2002) were observed from early December to late January, while the first Darwin report from 1999 was in October (Higgins et al. 2006) (Table 1). This timing is generally consistent with the southern occurrence of non-breeding birds that have migrated from Eurasia.

We note that three Red-rumped Swallow subspecies, namely *C. d. daurica*, *C. d. nipalensis*, and *C. d. japonica*, possibly occur in Australia based on their wintering ranges as reported by various sources (Turner & Rose 1989; Turner 2004; Higgins *et al.* 2006; Robson 2008, Gill & Donsker 2012). However, separation of these subspecies is unclear, making it difficult to identify to subspecific level the individuals observed in the NT. Higgins *et al.* (2006) state that the limited available data suggest *C. d. japonica* for Australian occurrences, but add that this needs further investigation. The two Australian specimens of Red-rumped Swallow that have so far been examined have been assessed as *C. d. japonica* on the basis of their size and comparison with museum material (Carter 2000). We suggest that the 2008 and 2010 individuals documented in this paper were potentially *C. d. japonica* based on the clear, heavy streaking; *C. d. japonica* is the most heavily streaked of the group (Carter 2000; Turner 2004) and, according to Turner (2004), is intermediate between *C. d. daurica* 

and Striated Swallow (see Turner & Rose (1989), Carter (2000) and Turner (2004) for subspecies identification).

Carter (2000) notes an increasing number of records of both Red-rumped Swallow and Striated Swallow in New Guinea and a claimed occurrence of Striated Swallow in Queensland. Observers should carefully scan any group of martins and swallows during the northern Australian wet season for additional occurrences, keeping in mind that Red-rumped Swallows in worn non-breeding plumage may easily be overlooked. Given the difficulties in separating the various Red-rumped Swallow subspecies and similarities with Striated Swallow (which may also be a subspecies of the former), suspected occurrences should be well documented and photographed when possible to contribute to further knowledge on subspecific identification.

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## References

BARC Submission No. 390: Red-rumped Swallow *Hirundo daurica* Darwin, NT. 20 February 2003. Submitted by: Niven McCrie.

BARC Submission No. 483: Red-rumped Swallow *Hirundo daurica* Darwin, NT, 16<sup>th</sup>–17<sup>th</sup> March 2006. Submitted by: G. Maurer and Stuart Cooney.

BirdLife International (2012) Species factsheet: *Hirundo daurica*. http://www.birdlife.org/datazone/speciesfactsheet.php?id=32601 (accessed 1 November 2012).

Carter M. (2000) Identification of Red-rumped and Striated Swallows Hirundo daurica and H. striolata in Australasia. Australian Birding 6(2), 9–18.

Gill F. and Donsker D. (eds). (2012) IOC World Bird Names (Version 3.1). http://www.worldbirdnames.org (accessed 16 June 2012).

Higgins P.J., Peter J.M. and Cowling S.J. (eds) (2006) Handbook of Australian, New Zealand and Antarctic Birds. Volume 7: Boatbill to Starlings. Oxford University Press, Melbourne.

Noske R.A. and Brennan G.P. (2002) The Birds of Groote Eylandt. NTU Press, Darwin.

Robson C. (2008) Field Guide to the Birds of Thailand and South-East Asia. New Holland, London.

Turner A. (2004) Family Hirundindidae (swallows and martins). In: The Birds of the World. Volume 9: Contingas to Pipits and Wagtails. (eds J. Del Hoyo, A. Elliot and D. Christie). Lynx Edicions, Barcelona.

Turner A. and Rose C. (1989) A Handbook to the Swallows and Martins of the World. Christopher Helm, London.